

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference II/2-23016	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2005/050276	International filing date (day/month/year) 24/01/2005	(Earliest) Priority Date (day/month/year) 02/02/2004
Applicant CIBA SPECIALTY CHEMICALS HOLDING INC.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☐

It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐

With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐

Certain claims were found unsearchable (See Box II).

3. ☒

Unity of invention is lacking (see Box III).

4. With regard to the **title**,

☒

the text is approved as submitted by the applicant.

☐

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒

the text is approved as submitted by the applicant.

☐

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐

as suggested by the applicant.

☐

as selected by this Authority, because the applicant failed to suggest a figure.

☐

as selected by this Authority, because this figure better characterizes the invention.

b. ☐

none of the figures is to be published with the abstract.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1(part)-6(part)

photoinitiator represented by formula I wherein n is 1 / *referred to*
composition comprising said photoinitiator / use of said
photoinitiator to cure the composition

2. claims: 1 (part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and
R2 is a direct bond / composition comprising said
photoinitiator / use of said photoinitiator to cure the
composition

3. claims: 1(part)-6(part)

photoinitiator represented by formula I wherein n is 2, and
R2 is a C2-C16-alkylene / composition comprising said
photoinitiator / use of said photoinitiator to cure the
composition

4. claims: 1 (part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and
R2 is a cyclohexylene / composition comprising said
photoinitiator / use of said photoinitiator to cure the
composition

5. claims: 1 (part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and
R2 is a xylylene / composition comprising said
photoinitiator / use of said photoinitiator to cure the
composition

6. claims: 1 (part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and
R2 is a dihydroxyxylylene / composition comprising said
photoinitiator / use of said photoinitiator to cure the
composition

7. claims: 1 (part), 5(part), 6(part)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

photoinitiator represented by formula I wherein n is 2, and R2 is a C4-C8-alkenediyl / composition comprising said photoinitiator / use of said photoinitiator to cure the composition

8. claims: 1(part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and R2 is a C6-C10-alkadienediyl / composition comprising said photoinitiator / use of said photoinitiator to cure the composition

9. claims: 1(part), 5(part), 6(part)

photoinitiator represented by formula I wherein n is 2, and R2 is a dipentenediyl / composition comprising said photoinitiator / use of said photoinitiator to cure the composition

10. claim: 7

use of compounds of formula I to prepare multifunctional photoinitiators

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International application No.
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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see annex

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/050276

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G03F7/031 C08F2/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G03F C08F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 992 547 A (G. BERNER ET AL.) 12 February 1991 (1991-02-12) cited in the application page 13, line 23 - line 24 claim 1	1-6
A	----- EP 1 357 117 A (C. C. CHIU ET AL.) 29 October 2003 (2003-10-29) cited in the application * page 12, compound 4 * * page 13, compound 369N * -----	1-6

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

7 June 2005

Date of mailing of the international search report

6. 10. 2005

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/050276

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4992547	A	12-02-1991	CA 1226287 A1	01-09-1987
			DE 3471486 D1	30-06-1988
			EP 0138754 A2	24-04-1985
			JP 2518592 B2	24-07-1996
			JP 7070220 A	14-03-1995
			JP 1948707 C	10-07-1995
			JP 6070090 B	07-09-1994
			JP 60084248 A	13-05-1985

EP 1357117	A	29-10-2003	US 2003225179 A1	04-12-2003
			US 2004068110 A1	08-04-2004
